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ABSTRACT

A method for determining an orientation of a photosensor of a controller with respect to a projector is described. The method includes generating, by a beam generator of the projector, a beam. The method further includes modifying a direction of travel of the beam using a micro-electro-mechanical systems (MEMS) mirror that moves in a pattern, detecting the beam, calculating a time at which the beam is detected, and determining based on the pattern and the time an orientation of the beam to determine the orientation of the photosensor.

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